



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,845	01/08/2004	Michael O'Banion	0275A-000505/USB	6050
27572	7590	07/24/2006	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			PRONE, JASON D	
			ART UNIT	PAPER NUMBER
			3724	

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	10/753,845	O'BANION ET AL.	
	Examiner	Art Unit	
	Jason Prone	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6, 14-42, 45-68, 71-76 and 78-99 is/are pending in the application.
- 4a) Of the above claim(s) 3-6, 14-42, 45-68, 71-75, 82-89 and 95-99 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 76, 78-81 and 90-94 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 82-86 and 95-99 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Claims 87-89 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 03 May 2006.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 76, 78-81, and 90-94 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In regards to paragraph [0186] on page 32 of the specification, the phrases "...depth sensor 214 that senses if a human extremity is in close proximity to a rotating saw blade" and "In most cutting operations, the thickness of the workpiece 218 that is being cut is relatively consistent" are not clear. It is unclear how the depth sensor senses the close proximity of a human extremity. In paragraph [0186], it is stated that the depth sensor detects sudden depth changes and that stops

the blade. The term "close proximity" means near or next to. In order for the depth sensor to detect a depth change the saw must actually contact a separate item to create the depth change. Without the blade cutting into an item with a different depth the sensor will not know the depth has been changed. Therefore, it is unclear how the depth sensor can detect human extremity is in close proximity to a rotating saw blade when a close proximity does not mean contacting the blade. For example, the user's hand is on top of and pushing the work piece into the saw. The user's hand is in close proximity to the blade but the depth of the cut has not changed how does the depth sensor stop the blade? If for some reason the user's hand touches the blade before the workpiece, assuming the hand has a constant depth, the saw would not stop would not stop until the user touched another item with a different depth to the blade.

Also, it is unclear how the depth sensor determines if the sudden depth change is due to a human extremity. For example, the phrase "In most cutting operations, the thickness of the workpiece 218 that is being cut is relatively consistent" clearly states "in most cutting operations". If the work piece has a varying thickness that would allow the depth sensor to sense a sudden depth change, the switch would still stop the blade or if the user was cutting a thick piece of wood and was using a thin piece of scrap wood to push the thick workpiece, the switch would still stop the blade if the thinner scrap piece was detected. The depth sensor only detects sudden depth changes but cannot differentiate between what causes the depth change and would, therefore, stop the saw blade whether the depth change is caused by a human, a thinner/thicker portion of the workpiece, or a thinner/thicker scrap pusher piece, etc. The specification does not

provide any support that the depth sensor can perform any function besides detecting sudden depth changes. Therefore, it is unclear how the depth sensor can differentiate between items that could cause a sudden depth change to determine that the item causing the depth change is in fact a human extremity.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 76, 78-81, and 90-94 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. In regards to claims 76 and 90, the phrases "a sensing mechanism that measures characteristics of a workpiece to determine a human extremity in proximity to the active portion of the power tool" and "a sensing mechanism that determines a human extremity in proximity to the active portion of the power tool" are not accurate. First, it is unclear how the sensing mechanism can determine that a human extremity is in proximity to the active portion of a blade. If the user used a scrap wood push-stick, how would the sensing mechanism differentiate between a human extremity and the scrap wood? It is unclear how measuring the characteristics of a workpiece allows the sensor to determine a human extremity is close to the blade. The sensor detects change. The blade must cut into a secondary item thereby creating a change that could be detected by the sensing mechanism (i.e a different thickness or capacitance). It is the cutting through the work piece into a secondary item that would create, for example, a sudden depth change. The measuring of characteristics of the work piece does not

determine a human extremity is next the active part of the blade. Also, if the work piece had characteristics that vary suddenly, would the saw be stopped? How would the saw differentiate between the dangerous (human finger) and normal conditions (a workpiece incorporating a varying thickness that could be construed as a sudden thickness change)?

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 76, 78-80, and 90-93 are rejected, as best understood, under 35 U.S.C. 102(e) as being anticipated by Gass (2002/0170400).

In regards to claims 76 and 90, Gass discloses the same invention including a sensing mechanism that measures characteristics of a workpiece to determine a human extremity in proximity to the active portion (22), an engaging member (158) pivotally coupled to a portion of a power tool (156), a biasing member normally biasing the engaging member into engagement with the active portion of the power tool (160), and a release mechanism retaining the engaging member in a first position against the biasing member (164 and 166) and operable to release the engaging member into the

active portion of the tool upon receipt of a signal from the sensing mechanism (Page 5, paragraph [0048], lines 1-6).

In regards to claims 78 and 91, Gass discloses the release member includes a fuse member interconnected between the engaging member and a portion of the tool (164 in Fig. 5).

In regards to claims 79 and 92, Gass discloses the release mechanism comprises a controller operable to apply current to the fuse member causing the fuse to fail (166, Page 5, paragraph [0048], lines 1-6).

In regards to claims 80 and 93, Gass discloses the fuse member includes a wire (Item 164 is clearly labeled as a fuse wire).

9. It is to be noted that claims 81 and 94 have not been rejected over prior art. It may or may not be readable over the prior art but cannot be determined at this time in view of the issues under 35 USC § 112.

Response to Arguments

10. Applicant's arguments filed 23 January 2006 have been fully considered but they are not persuasive. The new limitation, of claim 76, is rejected as best understood see 112 rejections above. Item 22 in the Gass reference clearly determines the presence of a human extremity in proximity to the active portion.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gass et al. ('514).

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Prone whose telephone number is (571) 272-4513. The examiner can normally be reached on 7:00-4:30, Mon - (every other) Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Art Unit: 3724

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature, possibly reading "JP", consisting of a large loop and a diagonal stroke.

JP
July 14, 2006

A handwritten signature, possibly reading "B. Ashley", consisting of a stylized "B" and a cursive name.

BOYER D. ASHLEY
SUPERVISORY PATENT EXAMINER